AMENDMENTS TO CLAIMS

1-19. (Cancelled)

20. (Previously Amended) A pharmomechanical device, comprising:

a catheter having a corkscrew configuration throughout its length that is substantially incapable of damaging an endothelium of a vascular structure, said catheter rotating between 30 rpm and 600 rpm once it is inserted inside a patient, said catheter increasing the surface area of a clot in said vascular structure such that said clot can be dissolved by a lytic agent; and

means for providing mechanical motion to said catheter throughout a length of a vessel for a prolonged period of time while said lytic agent is acting.

21. (Original) The device as set forth in claim 20, wherein said period is at least about 5 hours.

22. (Original) The device as set forth in claim 20, wherein said period is at least about 10 hours.

23. (Original) The device as set forth in claim 20, wherein said period is at least about 24 hours.

24. (Previously Amended) The device as set forth in Claim 20, wherein said means for providing mechanical motion operates intermittently and over a prolonged period of time.

25. (Previously Amended) The device as set forth in Claim 24, wherein said means for providing mechanical motion provides for a time of inactivity at least as great as a time of activity of said device.

26. (Previously Amended) The device as set forth in Claim 20, wherein said means for providing mechanical motion generates vibrations effective to disrupt a clot, but does not promote hemolysis or cause damage to an endothelium.

27. (Previously Amended) The device as set forth in Claim 20, wherein said corkscrew configured catheter extends for a substantial length of said vessel.

28. (Original) The device as set forth in Claim 20, further comprising an occluding element positioned so as to maintain desired concentration of a thrombolytic drug in a desired segment of a patient's blood vessels.

29. (Previously Amended) The device as set forth in Claim 25, wherein a ratio of an inactivation time to an activation time is greater than 1.

30. (Previously Amended) The device as set forth in Claim 25, wherein a ratio of an inactivation time to an activation time is greater than 50.

31-40. (Cancelled)

41. (Currently Amended) The device as set forth in Claim 20, further comprising a pump that ~~is programmable to deliver a lytic agent~~ delivers lytic agent in pulse waves, said pulse waves causing an intermittent mechanical motion of said catheter, and wherein an intermittent mechanical motion of the catheter is caused by the delivery of said lytic agent.

42. (Previously Amended) The device as set forth in Claim 41, wherein said pump is programmed to deliver said lytic agent at a desired frequency or duration.

43-55. (Cancelled)

56. (Previously Added) A pharmomechanical device, comprising:

a catheter having a length and having a corkscrew configuration throughout a substantial portion of said length, said catheter being substantially incapable of damaging an endothelium of a vascular structure, said catheter rotating between 30 rpm and 600 rpm once it is inserted inside a patient to increase the surface area of a clot in said vascular structure; and

a means for rotating said catheter.

57. (Previously Added) The pharmomechanical device of Claim 56, wherein said catheter rotates at less than about 300 rpm.

58. (Previously Added) The pharmomechanical device of Claim 56, wherein said catheter rotates at less than about 55 rpm.

59. (New) A pharmomechanical device, comprising:

a catheter having a corkscrew configuration throughout substantially its entire length that is substantially incapable of damaging an endothelium of a vascular structure, said catheter rotating less than about 55 rpm once it is inserted inside a patient, said catheter increasing the surface area of a clot in said vascular structure such that said clot can be dissolved by a lytic agent; and

a pump that delivers lytic agent in pulse waves, said pulse waves causing an intermittent mechanical motion of said catheter.